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EXAMINER	
HOM, SHICK C	
ART UNIT	**PAPER NUMBER**
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/045,290	LEWIS ET AL.	
	Examiner	Art Unit	
	Shick C. Hom	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/10/06 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the choice of bandwidth allocation methods for empty cells being based on the insertion request as argued in page 11 lines 3-8 of the remark) are not clearly recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, in pages 10-11 of the remarks, applicant argued that the prior art do not teach or suggest the step of "determining an appropriate insertion scheme for carrying out the insertion request" is not persuasive because Kawarai et al. in col. 2 lines 55-58 which recite that when the insertion request is sent, the quality of service class is reported and the shaping block inserts the empty cell based on the reported quality of service class clearly anticipate the step of

determining an appropriate insertion scheme for carrying out the insertion request as claimed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4, 6-16, 18-28, and 30-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawarai et al. (6,687,225) in view of Novick et al. (6,404,737).

Regarding claims 1, 13, 25, and 37-38:

Kawarai et al. disclose a method of inserting empty memory cells into a data flow of network connections of a computer network (see abstract which recite the cell insertion block for inserting an empty cell in a user cell stream being output from a buffer), the method comprising: receiving an insertion request for an empty memory cell to be inserted into the data flow (see col. 2 lines 42-55 which recite the means for sending an empty cell insertion request to the shaping block which receives the request); determining an appropriate insertion scheme for carrying out the insertion request (col. 2 lines 55-58 which recite that when the insertion request is sent, the quality of service class is reported and the shaping block inserts the empty cell based on the reported quality of service class clearly anticipate the step of determining an appropriate insertion scheme for carrying out the insertion request; further, further see col. 19 lines 7-23 which recite determining the timing for empty cell insertion being based on the scheduling counters of the QoS classes); and sending the

insertion request to an insertion device configured to insert the empty memory cell into a main buffer for the data flow (see col. 2 lines 33-41 which recite the buffer for accumulating the received user cells and empty cell being inserted at the read out of the buffer clearly anticipate inserting the empty cell into a buffer for the data flow) as in claims 1, 13, 25, 37-38; and the priority insertion request (see col. 3 line 66 to col. 4 line 4) as in claim 38.

For claims 1, 13, 25, 37-38, Kawarai et al. disclose all the subject matter of the claimed invention with the exception of wherein the appropriate insertion scheme includes a first insertion scheme configured to send the insertion request using a first indicator that the empty memory cell should be shaped using predetermined shaping parameters and a second insertion scheme configured to send the insertion request using a second indicator that the empty memory cell should be unshaped; and where the insertion request including the first indicator or the second indicator based on the appropriate insertion scheme determined.

Novick et al. from the same or similar fields of endeavor teach that it is known to provide wherein the appropriate insertion scheme includes a first insertion scheme configured to send the insertion request using a first indicator that the

empty memory cell should be shaped using predetermined shaping parameters and a second insertion scheme configured to send the insertion request using a second indicator that the empty memory cell should be unshaped; and where the insertion request including the first indicator or the second indicator based on the appropriate insertion scheme determined (see col. 3 line 65 to col. 4 line 41 which recite the method of managing shaped and unshaped traffic in a single virtual path VP using two-stage shaping and two-priority queuing whereby shaped cells are stored and dequeued via a high priority queue and unshaped cells stored and dequeued via a low priority queue according to the VP contract clearly reads on using first indicator and second indicator of cell being shaped and unshaped, respectively, i.e. the high priority contract indicator corresponding to cell being shaped and the low priority contract indicator corresponding to the cell being unshaped). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the appropriate insertion scheme includes a first insertion scheme configured to send the insertion request using a first indicator that the empty memory cell should be shaped using predetermined shaping parameters and a second insertion scheme configured to send the insertion request using a second indicator that the empty memory cell

should be unshaped; and where the insertion request including the first indicator or the second indicator based on the appropriate insertion scheme determined as taught by Novick et al. in the communications method and circuit of Kawarai et al. The appropriate insertion scheme includes a first insertion scheme configured to send the insertion request using a first indicator that the empty memory cell should be shaped using predetermined shaping parameters and a second insertion scheme configured to send the insertion request using a second indicator that the empty memory cell should be unshaped; and where the insertion request including the first indicator or the second indicator based on the appropriate insertion scheme determined can be implemented by providing the unshaped transmission option and indicators of Novick et al. to the bandwidth control apparatus of Kawarai et al. The motivation for providing the appropriate insertion scheme includes a first insertion scheme configured to send the insertion request using a first indicator that the empty memory cell should be shaped using predetermined shaping parameters and a second insertion scheme configured to send the insertion request using a second indicator that the empty memory cell should be unshaped; and where the insertion request including the first indicator or the second indicator based on the appropriate insertion scheme

determined as taught by Novick et al. in the communication method and apparatus of Kawarai et al. being that it provides more efficiency for the system since the system can transmit both shaped and unshaped traffic using a single path.

Regarding claims 2-3, 14-15, 26-27:

Kawarai et al. disclose receiving a base connection identification (CID) associated with the insertion request, wherein the first insertion scheme is configured to send the insertion request using the base connection identification (CID), wherein the base connection identification is associated with predetermined shaping parameters (see col. 17 lines 56-63 which recite the empty cell information holding counter managing the cells for each line identifier and the shaping buffer to manage the cells for the QoS class clearly reads on the connection identification being associated with the shaping parameters as in claims 2, 14, 26 and shaping the empty memory cell according to the predetermined shaping parameters as in claims 3, 15, 27).

Regarding claims 4, 16, 28:

Kawarai et al. disclose wherein the second insertion scheme is configured to send the insertion request using dedicated unshaped connection identifications (see Fig. 16 and col. 12 lines 13-20 which recite the QoS#1 connection providing a

quality guaranteed service and the QoS#2 connection providing a best effort service clearly reads on the dedicated unshaped connection, because the best effort connection is not subject to any kind of regulation and hence an unshaped connection).

Regarding claims 6, 18, 30:

Kawarai et al. disclose configuring the dedicated unshaped connection identifications for the computer network to obtain configured connection identifications; configuring the base connection identification for the configured connection identifications (see col. 12 lines 13-20 which recite the QoS#2 connection providing a best effort service and col. 17 lines 32-45 which recite the counter being configured for managing the empty cell request for the connection identifier clearly reads on the unshaped connection identification and configuring the connection identification); configuring a cell type indication to be used for the insertion request (see Figs. 3A-3C and col. 6 lines 47-54 which recite the "EN" field which identifies the cell as an empty cell or valid cell and the "PTI" field which is the payload type identifier clearly anticipate the cell type indication); and configuring a queue identification to be used for the insertion request (see col. 15 lines 50-55 which recite the step of setting the queue length threshold value of the cell insertion queue for QoS#1 and of the cell insertion queue for

QoS#2 in order to control the delay time of the empty cell request according to the QoS class clearly anticipate the queue identification to be used for the insertion request).

Regarding claims 7, 19, 31:

Kawarai et al. disclose wherein the insertion request is received from one of: an operations and maintenance (OAM) device; a performance monitoring device; an available bit rate (ABR) device; a central processing unit; or an operations and maintenance scan device (see the abstract which recite the use of OAM cell and best effort service such as ABR).

Regarding claims 8, 20, 32:

Kawarai et al. disclose wherein the performance monitoring device and the operations and maintenance scan device each requires the insertion request to be carried out with the first insert scheme (see col. 7 lines 8-17 which recite cell insertion including management of OAM cells and performance management whereby the empty cell request signal includes the QoS class, line identifier, and connection identifier and see col. 7 lines 8-17 which recite cell insertion including management of OAM cells and performance management whereby the empty cell request signal includes the QoS class, line identifier, and connection identifier and col. 6 lines 12-32 which further recite securing the bandwidth matching the OAM cell using shaping).

Regarding claims 9, 21, 33:

Kawarai et al. disclose wherein the an available bit rate (ABR) device requires the insertion request to be carried out with the second insertion scheme (see the abstract which recite the use of best effort service such as available bit rate ABR for bandwidth control and insertion and col. 12 lines 13-20 which recite using the QoS#2 connection which provides a best effort service clearly reads the ABR insertion being carried out on the dedicated unshaped connection).

Regarding claims 10, 22, 34:

Kawarai et al. disclose wherein the step of determining the appropriate insertion scheme comprises performing a lookup in a scan table (see col. 16 lines 1-8 which recite the use of the shaping buffer management table including the line management table for storing user cell queue addresses and number of user cells in each QoS class number and for managing space in the shaping buffer clearly reads on the step of performing a lookup in a table to determine the insertion scheme).

Regarding claims 11, 23, 35:

Kawarai et al. disclose wherein the step of sending the insertion request causes the empty memory cell to be transmitted through the data flow (see abstract which recite receiving an

empty cell insertion request and the cell insertion block for inserting an empty cell in the user cell stream).

Regarding claims 12, 24, 36:

Kawarai et al. disclose wherein the empty memory cell inserted by the insertion device carries the cell type indication (see Figs. 3A-3C and col. 6 lines 47-54 which recite the "EN" field which identifies the cell as an empty cell or valid cell and the "PTI" field which is the payload type identifier clearly anticipate the cell type indication).

4. Claims 5, 17, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawarai et al. (6,687,225) and Novick et al. (6,404,737) in view of Lin et al. (5,966,163).

For claims 5, 17, 29, Kawarai et al. and Novick et al. disclose the system and method described in paragraph 3 of this office action. Kawarai et al. and Novick et al. disclose all the subject matter of the claimed invention with the exception of wherein there are 16 unshaped connection identifications.

Lin et al. from the same or similar fields of endeavor teach that it is known to provide wherein there are 16 unshaped connection identifications (see col. 5 lines 48-54 which recite using plural connection identifications).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to use 16 unshaped connection identifications as taught by Lin et al. in the communications system and method of Kawarai et al. and Novick et al. The use 16 unshaped connection identifications can be implemented by connecting 16 unshaped connection of Linet al. including the identifications to the network of Kawarai et al. and Novick et al.

The motivation for using 16 unshaped connection identifications as taught by Lin et al. in the communication system and method of Kawarai et al. and Novick et al. being that it provides the desirable added feature of supporting up to 16 diverse message traffic in the system.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SH SH

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